

**Notice of Allowability**

Application No.

09/553,735

Examiner

Emmanuel Bayard

Applicant(s)

SHENOI, KISHAN

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communication filed on 6/9/06.
2. ☒ The allowed claim(s) is/are 1-7,9,10,12,14-16,18,20,21,23-31,33-40 and 42-62.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment                               |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

### **DETAILED ACTION**

This is in response to appeal brief filed on 6/9/06 in which claims 1-7, 9-10, 12, 14-16, 18, 20-21, 23-31, 33-35, 37-40 and 42-62 are pending. The appeal brief has been fully considered and the finality has been withdrawn therefore this case is in condition for allowance. In addition the pending claims have been renumbered as 1-10, 16-21, 25-34, 41-48, 11, 49, 35, 50, 12, 22, 36-37, 51, 13-15, 23, 39, 52, 15, 24, 40 and 53 respectively.

#### ***Allowable Subject Matter***

1. The following is an examiner's statement of reasons for allowance: the prior arts of record fail to anticipate or render obvious the following recited features: generating an estimate of a frequency error of the oscillator using correlation values corresponding to  $(2M+1)$  time shifts of  $\{I_{pn}(n)\}$  and  $\{Q_{pn}(n)\}$ , the  $(2M+1)$  time shifts being  $K-AM$ ,  $K-A(w1)$ ,  $\dots$ ,  $K-AA$ ,  $K-AI$ ,  $K$ , and  $K+A1$ ,  $K+A2$ ,  $\dots$ ,  $K+A(w1)$ ,  $K+AM$ , where a time shift of  $K$  corresponds to a time shift that provides a maximum correlation value, and  $M$  is greater than or equal to  $1^*$ , and disciplining the oscillator using the estimate of the frequency error of the oscillator, wherein correlation values between the digital signal  $\{s(n)\}$  and at least one locally generated version of I-channel and Q-channel PN signals  $\{I_{pn}(n)\}$  and  $\{Q_{pn}(n)\}$  are averaged over multiple periods of the PN signals to improve a quality of pilot position estimation as recited in claims 1, 14, 23, 34. Averaging correlation values between the signal  $\{a(n)\}$  and the spectrum shaped channel pilot signal  $\{y(n)\}$  over

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multiple periods of the chip-rate PN sequence to improve a quality of pilot position estimation as recited in claim 24.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM) Alternate Friday off.

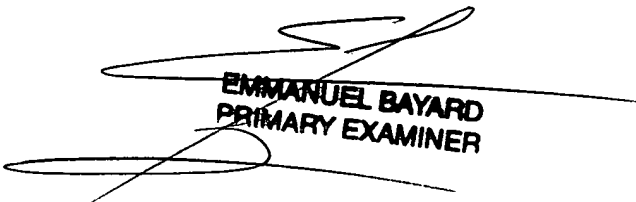
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571 272 2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Emmanuel Bayard  
Primary Examiner  
Art Unit 2611

8/16/06



**EMMANUEL BAYARD**  
**PRIMARY EXAMINER**